AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Previously Presented) A switch, comprising:

a forwarding table; and

a plurality of Destination Location Identifiers (DLID) and a set of forwarding instructions in the forwarding table, wherein each of the plurality of DLIDs corresponds to one of a plurality of routing trees and one of a plurality of end nodes in a network and wherein the forwarding instructions create paths appropriate to make the network operate as a strictly non-interfering network.

2. (Previously Presented) The switch of claim 1, wherein the network is a Clos network.

3. (Previously Presented) The switch of claim 1, wherein the plurality of routing trees comprises for each spine node in the network, a shortest path from the spine node to each of the plurality of end nodes.

4. (Previously Presented) The switch of claim 1, wherein each of the plurality of routing trees comprises at least a portion of a plurality of switches in the network and corresponding plurality of links that form a shortest path from one of the plurality of end nodes to a spine node of the network.

5. (Previously Presented) A switch comprising a computer-readable medium containing computer instructions for instructing a processor to perform a method of populating a forwarding table, the instructions comprising:

calculating a plurality of routing trees for the switch;

calculating a plurality of Destination Location Identifiers (DLID) and a set of forwarding instructions for the switch, wherein each of the plurality of DLIDs corresponds to one of the plurality of routing trees and one of a plurality of end nodes in a network and wherein the forwarding instructions create paths appropriate to make the network operate as a strictly non-interfering network; and

populating a forwarding table of the switch with the plurality of DLIDs and the set of forwarding instructions.

6. (Previously Presented) The switch of claim 5, wherein the network is a Clos network.

7. (Previously Presented) The switch of claim 5, wherein each of the plurality of end nodes comprises a destination, and wherein the destination is identified by a BaseLID.

8. (Previously Presented) The switch of claim 5, wherein calculating the plurality of routing trees comprises for each spine node in the network, calculating a shortest path from the spine node to each of the plurality of end nodes.

9. (Previously Presented) The switch of claim 5, wherein each of the plurality of routing trees comprises at least a portion of a plurality of switches and corresponding plurality of links in the network that form a shortest path from one of the plurality of end nodes to a spine node of the network.

10. (Previously Presented) The switch of claim 9, wherein the shortest path is loop-less.

11. (Previously Presented) A switch comprising a computer-readable medium containing computer instructions for instructing a processor to perform a method of forwarding a packet within a network, wherein the packet is created at one of a plurality of sources and is addressed to one of a plurality of destinations within the network, the instructions comprising:

populating a forwarding table of the switch with a plurality of Destination Location Identifiers (DLID) and a set of forwarding instructions and wherein the forwarding instructions create paths appropriate to make the network operate as a strictly non-interfering network; and

the packet following a path through the switch from the one of the plurality of sources to the one of a plurality of the destinations, wherein the switch forwards the packet according to one of the plurality of DLIDs assigned to the packet, and wherein the one of the plurality of DLIDs assigned to the packet corresponds to one of the plurality of DLIDs and the set of forwarding instructions in the forwarding table.

12. (Previously Presented) The switch of claim 11, wherein the network is a Clos network.

13. (Cancelled)

14. (Previously Presented) The switch of claim 11, wherein the packet following the path comprises looking up the one of the plurality of DLIDs assigned to the packet in the forwarding table at the switch.

15. (Previously Presented) The switch of claim 11, wherein the packet following the path comprises the switch forwarding the packet in accordance with the one of the plurality of DLIDs assigned to the packet and the set of forwarding instructions as found in the forwarding table of the switch.

16. (Previously Presented) The switch of claim 1, wherein the switch is an switch in compliance with an InfiniBand Architecture Specification.

17. (Previously Presented) The switch of claim 5, wherein the switch is an switch in compliance with an InfiniBand Architecture Specification.

18. (Currently Amended) The switch of claim [[1]] 11, wherein the switch is an switch in compliance with an InfiniBand Architecture Specification.

19.   (Previously Presented) A switch comprising a computer-readable medium containing computer instructions for instructing a processor to perform a method of forwarding a packet within a network, wherein the packet is created at one of a plurality of sources and is addressed to one of a plurality of destinations within the network, the instructions comprising:

populating a forwarding table of the switch with a plurality of Destination Location Identifiers (DLID) and a set of forwarding instructions and wherein the forwarding instructions create paths appropriate to make the network operate as a strictly non-interfering network; and

the packet following a path through the switch from the one of the plurality of sources to the one of a plurality of the destinations, wherein the switch forwards the packet according to one of the plurality of DLIDs assigned to the packet, wherein the one of the plurality of DLIDs assigned to the packet corresponds to one of the plurality of DLIDs and the set of forwarding instructions in the forwarding table, wherein one of the plurality of DLIDs assigned to the packet in the forwarding table is looked up at the switch, and wherein the switch forwards the packet in accordance with the one of the plurality of DLIDs assigned to the packet and the set of forwarding instructions as found in the forwarding table of the switch,

wherein the network is a Clos network.